

IN THE CLAIMS:

Please AMEND claims 16, 18, 19 and 24, and ADD new claims 25-27, as follows. Note that all the claims currently pending in this application, including those not currently being amended, have been reproduced below for the Examiner's convenience.

1 - 15. (Previously Cancelled)

16. (Currently Amended) A projection exposure apparatus, comprising:

DI an illumination optical system for illuminating a reticle with light from a light source, wherein said illumination optical system includes an optical integrator for producing a secondary light source with the light from the light source, and masking means for restricting an illumination range upon the reticle, which is to be illuminated, with illumination light from the secondary light source;

a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;

measuring means for measuring telecentricity of said projection optical system with respect to different image heights; and

changing means for changing an incidence angle of the illumination light corresponding to each of the different image heights, to adjust the telecentricity with respect to the image height on the basis of the result of the measurement, wherein said adjusting means

D1
end
moves an optical element disposed in a portion of said illumination optical system between said optical integrator and said masking means, along an optical axis direction.

D2
17. (Previously Added) An apparatus according to Claim 16, wherein said optical element is a lens.

D3
18. (Currently Amended) A projection exposure apparatus, comprising:
an illumination optical system for illuminating a reticle with illumination light;
a projection optical system for projecting a pattern of the reticle, as illuminated,
onto a substrate;
measuring means for measuring telecentricity of said projection optical system
with respect to different image heights, ~~said measuring means also measuring telecentricity with
respect to an optical axis~~ including an on-axis position and an off-axis position;
first changing means for changing an incidence angle of the illumination light
~~corresponding to each of the different image heights~~, to adjust the telecentricity with respect to
the image height on-axis position, on the basis of the result of the measurement; and
second changing means for changing an incidence angle of the illumination light
to adjust the telecentricity with respect to the ~~optical axis~~ off-axis position, on the result of the
basis of the measurement.

20 - 21. (Previously Cancelled)

19. (Currently Amended) An apparatus according to Claim 18, wherein said illumination optical system includes an optical integrator for producing secondary light sources with illumination light supplied from the light source, and wherein said illumination optical system includes an optical element, which is disposed at a light entrance side of said optical integrator.

22. (Previously Added) An apparatus according to Claim 18, wherein said illumination optical system includes an optical integrator for producing a secondary light source with light supplied from the light source.

23. (Previously Added) An apparatus according to Claim 22, wherein said second changing means includes an optical element disposed at a light entrance side of said optical integrator.

24. (Currently Amended) A projection exposure apparatus, comprising:
an illumination optical system for illuminating a reticle with illumination light;
a projection optical system for projecting a pattern of the reticle, as illuminated, onto a substrate;
measuring means for measuring telecentricity of said projection optical system with respect to different image heights;

changing means for changing an incidence angle of the illumination light
corresponding to each of the different image heights, to adjust the telecentricity with respect to a
respective image height on the basis of the result of the measurement; and

adjusting means for adjusting an illuminance distribution on a surface to be
illuminated, in accordance with a change made by said changing means.

OS
25. (New) A device manufacturing method, comprising the steps of:

exposing a wafer with a device pattern by use of an exposure apparatus as recited
in Claim 16; and

developing the exposed wafer.

26. (New) A device manufacturing method, comprising the steps of:

exposing a wafer with a device pattern by use of an exposure apparatus as recited
in Claim 18; and

developing the exposed wafer.

27. (New) A device manufacturing method, comprising the steps of:

exposing a wafer with a device pattern by use of an exposure apparatus as recited
in Claim 24; and

developing the exposed wafer.
